

Brainerd, (H. C.)



A. REPORT

UPON TWO HUNDRED EXPERIMENTAL CASES

OF

Injection of the Brown-Sequard Testicular Secretion,

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On the first of June last, Prof. Brown-Sequard made a communication to the Société de Biologie, of Paris, upon THE EFFECTS PRODUCED ON MAN BY SUBCUTANEOUS INJECTIONS OF A LIQUID OBTAINED FROM THE TESTICLES OF ANIMALS, which Report was published in the Comptes Rendus of that society on June 21st.

As would be expected, such a statement, emanating from a man who for a long lifetime has been recognized as the foremost physiologist of Europe, attracted general attention.

Promptly a few prominent physicians began cautiously to investigate and experiment. Instantly the secular press everywhere flamed with starting headlines announcing the discovery of an ELIXIR OF LIFE, ETC., ETC., and the lay public for a day was agog with excitement and nonsense.

Many ambitious physicians made crude and dangerous experiments, experiments unscientific in procedure and unsatisfactory in results; while that large class of physicians who never make an original observation, and to whom anything of which they have not previously heard or seen demonstrated must necessarily be impossible, cried "Humbug," "Fraud" and swelled the rabble cry "Crucify," the echo of which for eighteen hundred years has greeted every new developement in religion or science.

A learned writer has said, "Most of the conservative skepticism in the world is simply the easy refuge in which stupidity or craftiness shelters itself from responsibility."

The time ought to be fully come when the official or professional statements, even though they be startling or revolutionary, of persons who are recognized authority upon the point at issue, should receive at least respectful consideration.

He is a bigot who, simply because a thing is not in harmony with his accepted traditions, instantly condemns and anathematizes.

I heard the learned Prof. Cocker say that, through an interpreter, he told the King of one of the Sout Sea Islands, that in his country, at certain seasons of the year, water in rivers and ponds became so hard that a man could walk upon it, to which the King promptly replied, "I know that is a lie."

Socrates, against the knowledge and traditions of his times, asserted that the earth moved; instead of his assertions being calmly investigated, he was promptly treated with calumny and death.

When Harvey announced the circulation of the blood, he was expelled from the medical society to which he belonged, and denounced as an impostor.

Jenner's statement of his theory and practice of vaccination was received with derision and jeers.

Even in our own time, the discoverer of anaesthesia was stigmatized as an ignoramus and a quack.

The ancient alchemists dreamed of a "philosophers stone," and the transmutation of metals. More modern science laughed at the idea as a dream of folly; conclusively teaching that each metal was a simple element, and transmutation impossible. But, to-day: in an article in the current number of a leading scientific journal, a learned writer says "Recent advances in chemistry and physics have shown that many substances formerly supposed to be very different one from another, are now known to be identical, except in their external forms. The list of so-called elementary substances are decreasing instead of increasing in number. There is strong reason for believing that there is after all but one form of matter, which makes itself manifest to us under different aspects. He is an ignoramus that asserts that it is impossible that lead and gold can be identical. The fact is that outside the domains of mathematics and physics there are no impossibilities in nature. Things are regarded as impossible simply because as yet they have not been proven."

Fondly do we anticipate the day when a physician desirous to enlarge his therapeutic armamentarium and add to classified knowledge by announcing his research with some new drug or remedy will not be deluged with ridicule and abuse.

Experiments are necessary. Without honest investigation it is impossible to "prove all things," if happily we may, "hold fast that which is good."

Said Horace Bushnell on a certain occasion, "Enough, that consciously to myself it requires a much stronger balance of equilibrium and a much firmer intellectual justice, saying nothing of the necessary courage, to report these facts without any protestation of dissent or discredit, than it would be to toss them by with derision in compliance with the more conventional notions of the times."

The theory formulated by Prof. Brown-Sequard and the arguments or physiological statements advanced in its support are, we assume, familiar to you all. It is a trite saying that in reaching a practical conclusion, "An ounce of fact is worth more than a pound of theory." Therefore, without discussing the theory, we simply offer the sublimate of the facts that have been demonstrated by over two hundred carefully conducted experiments.

The fluid used in every instance, was taken from the glands of a young, healthy ram, which had been kept isolated for at least twenty-four hours and well fed. Allowing the theory of RESORPTION, the spermatic veins and vas-deferens were first carefully ligated as far from the testicle as practical before removal; after removal, the fluid contents of the spermatic veins was carefully expressed, the epididymis and vas-deferens were fully relieved of their retained semen which added to the previously expressed contents of the spermatic veins, with an equal quantity of distilled water, was filtered through thin filter paper. Every vessel and instrument used having been thoroughly washed in a strong solution of corrosive sublimate and dried with alcohol, and the filtering conducted under glass. Fluid so prepared, it was believed, contained all the desired constituents; under a powerful microscope, it presented no bacteria; and when used within six hours, in no instance produced local disturbance.

In most cases, the hypodermic injection was made over the insertion of the deltoid muscle; in cases of sciatica, over the sciatic nerve. The amount of fluid injected, varied from one fourth to one drachm. The number of injections given in individual cases varied from one to twelve. Many cases of simple general nervous and muscular prostration or feebleness, with no pronounced organic disease, showed positive benefit from the first injection. Several cases of a hemiplegic or paralytic nature showed little or no benefit until after three or four injections, when improvement became manifest.

In a private letter of Aug. 15th, received from Brown-Sequard, he says, "An injection should be made at first every two days, and after a fortnight or two at least once a week."

The experiments began Aug. 7th, and embraced a period of over a month. Of the two hundred patients treated, nineteen of whom were women, I am proud to say, nearly all are people of superior intelligence and education, many being well known professional and business men; all persons who are not imaginative, and whose statements as witnesses would be fully accepted in any court.

1st. THE CLASS OF CASES THAT RECEIVED NO REAL BENEFIT. Fore-

most in this class naturally comes the long line of organic and structural diseases and decrepitudes; patients whom every intelligent physician recognizes as being amenable only to palliative treatment, but whom tenacious in a hope of benefit, insist on trying the last new thing. Next, people of plethoric habit with good assimilation and abundance of blood; persons who carry the evidence of living well and easy, and whose indispositions are more from an overcharged condition of the system than from mental strain or physical prostration.

2nd. THE CLASS OF CASES MOST IMMEDIATELY AND PERMANENTLY BENEFITED, as demonstrated in twenty-seven cases, are professional or business men of middle age, with capable and active minds, but physically feeble; comparatively free from organic disease yet possessing slight recuperative power, and quickly suffering weariness and fatigue.

3rd. SPECIFIC DISEASES AND COMPLAINTS BENEFITED. Hemiplegia to the extent of dragging one arm and leg. Four cases, all very much improved by continuous treatments; in two cases the benefit did not begin till after the fourth injection. Locomotor ataxia, three cases; these cases show the most pronounced and continuously progressive benefit of any of the experiments; one, a well known gentleman, who walked with extreme difficulty has received thirteen injections and now "can walk straight with his eyes shut."

Muscular and sciatic rheumatism and lumbago. Five cases of muscular rheumatism, all benefited; the greater the suffering and difficulty in using the limb, the more pronounced the benefit. Four cases of sciatica; two, suffering intense pain, affirm complete relief from pain; general improvement in all. Two cases of lumbago; not so fully relieved as the other forms of rheumatism.

Impotence, seven cases; those resultant from mental work and worry much benefited; those which were the result of long continued abuse or excesses received but slight benefit.

Cases of insomnia caused by overtaxed mental conditions, hypochondria, melancholia, mental depression, feeble heart—without valvular disease—cardiac asthma, spinal irritation, partial paralysis of neck of bladder, and neuralgia of the bladder. All were surely benefited.

Opium and whisky habit: two of the cases of sciatica were using morphia hypodermically; one from three to five grains daily; both report a complete cure. Two other cases of confirmed opium habit received no benefit. Three cases of business men who had contracted the habit of taking from two to five drinks of whisky a day to "brace up" on were able to stop it. One reported that not only did he not want the liquor, but it affected him as it would a man not accustomed to it.

In no case were beneficial results followed by depression or reaction.

DEDUCTION. While this treatment fails in a per cent of seemingly amenable cases, yet in a large number it produces an amount of relief and benefit as pronounced as that produced by any other remedy or means, and in some cases the relief or improvement is startlingly apparent and agreeable. Yet its extremely perishable nature, and the difficulties and dangers which hedge about its production and administration tend to prevent its general application.